



# THE AMERICAN BOARD OF SURGERY

1617 John F. Kennedy Boulevard Suite 860 · Philadelphia, PA 19103 · 215.568.4000 · [www.absurgery.org](http://www.absurgery.org)

## Request for Proposal for an Item Bank

By The American Board of Surgery

# Table of Contents

<b>Introduction/Background</b>	<b>3</b>
<b>Goals</b>	<b>3</b>
<b>Scope of Services (including technical requirements and future considerations/builds, integrations/interfaces required)</b>	<b>3</b>
User Interface	3
APIs	4
Content	4
Customer Service	5
Metadata	5
Outputs	6
Security	6
Upload	7
Workflow	7
<b>Timeline (including selection schedule)</b>	<b>7</b>
<b>Question and Answer timeline/contact/website</b>	<b>8</b>
<b>Proposal Requirements (outline, format, references, deliverables, points of contact, etc)</b>	<b>8</b>
<b>Evaluation Metrics</b>	<b>8</b>
<b>Award and Contract Specifications</b>	<b>8</b>

## **Introduction/Background**

The American Board of Surgery (ABS) is an independent, nonprofit organization founded in 1937 to provide board certification to individuals who have met a defined standard of education, training, and knowledge in the field of surgery. This is done through the administration of a series of exams currently given in testing centers, hotels, and, most recently, remotely through video conferencing software. Additionally, ABS has a series of lower-stakes assessments delivered online, some with access to educational resources.

ABS currently authors, edits, and revises multiple-choice exam questions and oral exam cases using Word, Dropbox, Google Drive, email, and, for some exams, an existing item bank that does not meet all of our current needs.

## **Goals**

The ABS desires to gather proposals from qualified vendors for the purpose of procuring and implementing an item bank for use in exam development and deployment.

Our goal is to create a secure, cloud-based, CMS that will consist of an item bank database that possesses the functionality to interface with customer resource management (CRM) and digital asset management (DAM) systems. Item bank deliverables/outputs will support QTI/XML formats to allow for upload to a third-party exam delivery system, such as PearsonVUE, Prometric, or Internet Testing Systems.

## **Scope of Services (including technical requirements and future considerations/builds, integrations/interfaces required)**

The scope of work shall encompass the requirements as outlined below.

### **User Interface**

- All roles should have access to an online interface to submit content
- User interface must be easy to use
- Must be browser agnostic
- Economy of space/white space in viewing screens, forms, reports, etc.
- Logical representation of data on forms, views, reports (alphabetical, grouped by function, etc., depending on what makes the most sense)
- Ability to color code backgrounds, fonts, tabs, labels, etc. for better visibility or direction to authors

## APIs

- Must be able to associate images and video to exam questions via API to a DAM
- Must be able to connect via API to a CRM to a user database (writers, editors, ABS staff who would touch the content in some way) to form the foundation of a content workflow solution.
- Must be able to assign exam content to people in this database for the purpose of item writing or review.

## Content

- Content should be created and edited in a WYSIWYG environment that is in XML(QTI)/HTML but looks like Word to the user and uses a template defined by the admin
- Must be able to view codes behind formatting (eg, HTML view) to fix hidden formatting issues
- Must be able to edit and format items easily without having to use HTML (especially cases)
- Supports various characters needed in medical terminology (symbols, Greek letters, etc)
- Must be able to copy/paste, update, and import content
- Ability to clone attributes of a workspace or item (multiple-choice question or case) to create a new version that shares those attributes with the past version
- For review purposes, in addition to the question/case, the user view should include admin-editable specific fields (eg, author, psychometric quality, comments, statistics), arranged in an easily-viewable format
- Must have the ability to group edit metadata, make global changes to specific words or phrases, and otherwise edit in bulk
- Strong search tool with ability to search on many different aspects, including question/case text and metadata; the search tools should support combinations of details joined by AND/OR statements
- Ability to view revision history (no real deletes of edits or material) with tracked changes
- Supports multiple templates for different types of assessments—not only questions with a multiple-choice single answer, but also open-ended question formats and other free text-based configurations such as cases
  - Has the ability for ABS to create new templates as needs change
- Must be able to maintain item key for one or more correct answers
- Must be able to create collections (lists) of exam items for both organizational/editing purposes and exam export
- Ability to automatically and manually organize items into family structures based on cloning, modeling, enemy relationships, etc
- Must be able to retire/archive exam questions
- Must be able to retire/archive projects
- Must be able to retire/archive users
- A medical dictionary such as Stedman's is/can be loaded into the system (has spell check); the dictionary should be editable (add words through spell-check), and the same editable dictionary should be available across all workspaces

- Includes a resources area with links such as PubMed, medical spell check, SSI units, acronym spell outs, a help guide to the tool, and writing and style guidelines
- Must have the ability to add a supporting reference for an exam question or case either through associated free text fields or a tool to look up references via doi or PubMed ID to automatically populate the reference in AMA style
- Reference fields must be editable and moveable
- There should be a comment field so that subject matter experts can submit information about specific questions or cases; should be able to toggle comments on or off for output/review
- Must have the ability to import a file that contains psychometric data for exam and case questions to display the results of how that question or case performed on an exam

## Metadata

- The item bank should have metadata fields, where both the field names and the items associated with the field can be updated by ABS staff as needed
- Ability to support exam blueprints (multidimensional blueprints—topic list, task, and competency)
  - This includes supporting item writing assignments that combine multiple aspects of a multidimensional blueprint, such as topic and task together
- Some metadata fields should be automatically generated, such as identifying the exam(s) in which the item has been used
- Need to be able to identify test items (questions or cases) using metadata that will be used for a particular exam, roster, and/or academic calendar year. Based on this metadata, admin should be able to create a query to export content to an XML/QTI file for third-party delivery of exam. ABS staff members must be able to edit the list of metadata fields.
- The tool should support the concept of “enemies,” which are exam questions or cases that should not appear in the same exam; enemy management can be handled in sets or pairs (when creating an exam, the tool should look for “enemies” and identify them to the admin for resolution, but also allow staff to override constraints).
- Metadata (referred to as item stat fields) needed for psychometrics:
  - Classical statistics
  - Rasch/IRT statistics
  - Distractor statistics
  - Customizable metadata fields (for things like psychometric quality indicators)
  - Item statistics by administration
  - Angoff ratings

## Workflow

- Support of workflow, both a standard template and the ability for ABS staff to define tailored workflows
- Automate content development assignments in a streamlined way with a lot of thought and functionality
  - Must be able to automatically create an item-writing or review assignment from the multi-dimensional blueprint, randomly distributing assignments based on parameters input by staff (eg, specific topics assigned at random and distributed

evenly vs specific subjects assigned based on user characteristics, such as subject matter expertise)

- Permissions/access controls/user types based on roles
- Must be able to route content based on predetermined roles to writers/editors for authoring, editing, and/or accept/reject for final approval based on predetermined workflow, but admin must be able to override workflow when needed
- Ability to curate the user experience based on roles (eg, for authors: turn access/functionality off, make it clear and streamlined)
- Automatic emails (that can also be turned off when desired) to let users know when content has been routed to them in the tool or an assignment is upcoming/overdue, with the ability for administrative users to create/edit the message text

## Exam Forms & Outputs

- Automated test assembly (ATA) algorithms that support constraints based on topic, competency, metadata, psychometric properties, etc
- Must be able to easily create exam forms that may comprise multiple exam sections and forms
- Ability to export data (QTI/XML, XLSX, PDF, CSV, etc) for upload to third-party software to administer the exam
- Ability to export data for psychometric purposes, including item statistics and keys
- The ability for ABS staff to create queries for reports on an as-needed basis
- The tool should have canned reports, the ability to set parameters and search to create reports, and should have the ability to request/build other canned reports, as well as the ability to sort any given report by any included data field
- Must allow administrators to configure export and/or have canned reports that are specifically designed to support review outside of the item bank that is presented in a clear, legible format
- Report examples include:
  - Customized query for a review view where you can edit and see key pieces of information and still make changes to content (collaborative review is an example)
  - There should be a view or report based on roles to see what is assigned to someone, such as a writer, to see status, where an item is in the workflow, etc.
  - Must have the ability to customize the appearance of a report, such as Word or PDF, that contains only the fields you want to show
  - Reporting should include the ability to report on individual users, such as which authors have submitted items on time and which have missed deadlines
  - Ability of the tool to provide results in graphic, text, chart, or tabular format
- Pool analysis report/tool
  - The item bank should provide a straightforward, streamlined way for staff to evaluate a pool of items to determine areas that need additional content coverage. This should allow the user to query according to separate or combined aspects of the blueprint and metadata (eg, items on a specific topic with statistics that fall within specified bounds).
- Ability to export metadata to .xlsx

## Security

- The tool must accommodate a full suite of permissions of what users can do, access, etc
- The tool must interact via API with CRM for role permissions
- Only administrator roles should be able to print (or roles should be customizable as to printing)
- Two-factor authentication for login
- Single-instance database (data not in a shared environment)
- Service-level agreements: response time in case of problems, what public access exists (other connection points to our data), etc
- SOC 2 certification

## Upload

- Ability to upload initial data from current CMS
- Ability to upload initial data from current Word (.docx) and/or Excel (.xlsx) files
- Ability to upload psychometric data and associate with related tests, questions, and cases in .xlsx or .csv format (multiple items in one document)

## Customer Service

- Training on the software should be available to ABS employees, eg, train-the-trainer, on-site training, virtual training, or other formats
- Support for user documentation
- Help guide for users
- Chosen vendor should be able to change the tool as ABS needs change
- Requested changes by ABS should be addressed in a reasonable amount of time
- Email and phone support should be available to ABS for the software

## Timeline (including selection schedule)

RFP Offered: **August 5, 2020**

RFP Submission Deadline: **5:00 PM EST, Friday, September 25, 2020**

Notification from ABS of award: **October 16th, 2020**

Commencement of contract: **January 4, 2021**

## Question and Answer Timeline

ABS will respond to all questions submitted by email regarding this RFP from August 5, 2020 to close of business on August 19, 2020. Questions should be sent to the Item Bank Review Committee at [examinations@absurgery.org](mailto:examinations@absurgery.org). Questions will be answered in the order they are received.

## **Structure of the Vendor Proposals**

Section 1: Executive Summary

Section 2: Company and Product Background Information

Section 3: Proposed Services and Deliverables

Section 4: Budget and Timeline

Section 5: Portfolio of Your Company's Relevant Work

- Describe your company and why it is best suited for this contract
- Describe projects that your company has worked on that are similar in nature to the solution detailed in this RFP.
- Provide information about your team structure and how you manage projects and interact with clients.

Appendices: Supporting Documents

- Please include three letters of reference from companies/associations you have provided comparable services for in the past 18 months.

## **Evaluation Metrics**

ABS will evaluate bidders and proposals based on the following criteria:

- Relevant product experience and qualifications
- Price
- Product offering
- Ability/flexibility of bidder's tool to support multiple templates and question types
- Customer service and training solution/plan
- Adaptability/flexibility of bidder and product for changes and modifications
- Availability of product documentation

## **Proposal, Award Specifications**

- This Request for Proposal does not in any way obligate the American Board of Surgery to accept any proposal.
- The American Board of Surgery reserves the right to reject all or part of vendor proposals, to have a partial award, or to award multiple vendors.
- American Board of Surgery may exercise its right to negotiate price and terms with the vendor whose bid affords the most benefit.
- The American Board of Surgery will retain all proposals received for one year, and will not distribute or disseminate them to any outside organizations.



## **Proposal Submission**

Final submissions will be accepted by email only. All proposals must be submitted as an attachment in PDF format. Please email your proposal to the Item Bank Review Committee at ***examinations@absurgery.org***.